Bellwork Hon Alg 2 Friday, November 4, 2016

Factor each completely.

1. $6x^{25} + 15x^{13} - 21x$

2. $\frac{3}{20}m^2 - \frac{3}{45}$

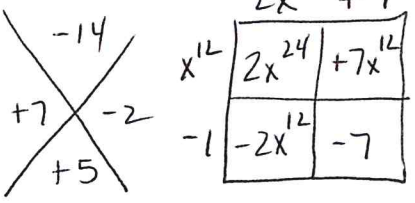
3. $r^{10} - 5r^5 - 36$

Bellwork Hon Alg 2 Friday, November 4, 2016 ANSWERS

Factor each completely.

1. $6x^{25} + 15x^{13} - 21x$

$= 3x\left(2x^{24} + 5x^{12} - 7\right)$



$3x\left(2x^{12}+7\right)\left(x^{12}-1\right)$

" " $\left(x^6+1\right)\left(x^6-1\right)$

$3x\left(2x^{12}+7\right)\left(x^6+1\right)\left(x^3\pm1\right)$

2. $\frac{3}{20}m^2 - \frac{3}{45} = \frac{3}{5}\left(\frac{1}{4}m^2 - \frac{1}{9}\right)$

$= \frac{3}{5}\left(\frac{1}{2}m \pm \frac{1}{3}\right)$

3. $r^{10} - 5r^5 - 36 = \left(r^5 - 9\right)\left(r^5 + 4\right)$